Journal of Sedimentary Petrology

INDEX TO VOLUME 37

A Beach Structure Due to Wind-Driven Foam.. 691
Abrasion. Experimental Field Study of Shell.... 1117
Abundances. Determination of Sedimentation Rates By Magnetic Spherule..... 1139
A Composite Detrital Grain from the Witwatersrand Conglomerates (South Africa)..... 227
Adsorption by Fine Grained Sediments. Methylene Blue..... 1221
Affecting the Lithification of Eolianite and Interpretation of its Environmental Significance in the Coastal Plain of Israel. Factors..... 1189
Africa. Analcite in the Upper Karroo Sediments, Herschel District, South..... 1236
Agterberg, F. P., Hills, L. V., and Trettin, H. P., article by..... 852
Aitken, J. D., article by..... 1163
Alaska. Cristobalite and Clinoptilolite in Bentonite Beds of the Colville Group, Northern..... 966
Alberta. Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern..... 1163
Algae in South Florida. The Production of Lime Mud by..... 633
Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green..... 1045
Algeria. Occurrence of Pure, Well-Crystallized 1M Illite in Cambro-Ordovician Sandstone from Rhourde El Baguel Field,..... 879
Allen, J. R. L., note by..... 691
Allophane and Na-Rich Alunite from Kaolinitic Nodules in Shale..... 215
Altered Pyrite Concretions from Israel. Sulfur Isotopes in..... 961
Altered Sandstones. Combined Analysis of Size, Shape, and Compositional Mode of Grains in..... 1250
Alunite from Kalolinitic Nodules in Shale. Allophane and Na-Rich..... 215
American Upper Ordovician Standard. VIII. R-Mode Factor Analysis of Cincinnatian Limestones. The..... 649
Analcite in the Upper Karroo Sediments, Herschel District, South Africa..... 1236
Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada—A Mississippian..... 365
Analysis. Freeze Drying as a Rapid Method of Disaggregating Silts and Clays for Dry Particle-Size..... 970
Analysis of Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend..... 852
Analysis of Cincinnatian Limestones The American Upper Ordovician Standard. VIII. R-Mode Factor..... 649
Analysis of Key Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic..... 175
Analysis of Size, Shape, and Compositional Mode of Grains in Altered Sandstones. Combined..... 1250
Analysis of Subaqueous Sediments. Methodology of Mechanical..... 96
Analysis of Tracer Sand. Automatic..... 749
Analysis of Turbidites in the Upper Devonian Sonyea Group, New York. Quantitative... 1012
Analysis. Recognizing Fossil Strand Lines from Grain-Size..... 157
Analyzer. Measurement of Roundness and Sphericity Parameters Using an Electronic Particle-Size..... 908
Anderson, D. M., and Reynolds, R. C., note by..... 966
A Negative Replication for Electron Microscopy Study of Carbonate..... 692
An Instrument for Measuring Planes and Vectors in Space..... 1241
An Occurrence of Large-Scale Rhomboid Ripples, Minas Basin, Nova Scotia..... 705
A Numerical Method for Sandstone Classification..... 548
Application of Plagioclase Extinction in Provenance Studies. Statistical..... 683
A Pocket Microscope for Grain Size Measurement in the Field..... 703
Aragonite Vein Fillings in Marine Managnese Nodules..... 68
A Rapid Method for Determining Weight Percentages of Unsieved Heavy Materials..... 521
Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic..... 852
Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island,.. 852
Areas of Late Paleozoic Sediments of the Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and Source..... 985
Arizona. Petrography of the Upper Cenozoic Non-Marine Sediments in the San Pedro Valley,..... 774
Arkansas. Slump Features, Fayetteville Formation, Northwestern..... 804
Arkoses of Jamkhandi, Mysore State, India. Authigenic Feldspars from the Lower Kaladigi..... 707
Armstrong, C. G., note by..... 1241
Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian)..... 377
Asquith, George Benjamin, article by..... 311
Asia. Sediments of the Malacca Strait, Southeast..... 102
Associated Sedimentary Matrix and Other Geologic Samples. Distribution of Carbohydrate Residues in Some Fossil Specimens and..... 12

Atlantic Coast Beach. The Orientation of *Donax* on an 1233
Atoll. Carbonate Sedimentation on Hogsty Reef. A Bahamian 658
Audley-Charles, M. G., article by 5
Austin, George and Parham, Walter, article by 863
Australia. Significance of Statistical Parameters for Distinguishing Sedimentary Environments in New South Wales 1059
Australia. Winnowing—An Important Process in the Concentration of the Stairway Sandstone (Ordovician) Phosphorites of Central 818
Authigenic Feldspars from the Lower Kaladgi Arkoses of Jamkhandi, Mysore State, India. 707
Automatic Analysis of Tracer Sand 749
Axial Ratio of Clays. The 956
Azimuth Variability. Tabular and Trough Cross-Bedding: Comparison of Dip 80

Bahamas. Carbonate Sand Bodies of Florida and the 556
Bahamas. Diagenesis and Porosity Development in Recent and Pleistocene Oolites from South Florida and the 355
Bahamian Atoll. Carbonate Sedimentation on Hogsty Reef, a 658
Bailey, R. J., discussion by 1252
Ball, M. M.; article by 556
Bank. Fossiliferous Concretions on Georges 1070
Bar: Addendum. Opal, Zeolites, and Clays in an Eocene Neritic Sand 240
Barakar Rocks of Ramgarh Coal- Field, Bihar, India. Turbidite Structures from 699
Barbados, West Indies. Diagenetic Fabrics in Biosparites from the Pleistocene of 1147
Barrier Reef. Black and Brown Foraminiferal Sand from the Southern Part of the Great 1023
Basin, Nova Scotia. An Occurrence of Large-Scale Rhomboid Ripples, Minas 705
Bay, Victoria. Delineating the Major Depositional Environments in Northern Port Phillip 931
Beach and Dune Sands, Dee Why, N.S.W. Shell Content in Quartzose 869
Beach and Dune Sands, Using Settling Velocities of Light and Heavy Minerals. Differentiation of 514
Beach and River Sands. Dynamic Processes and Statistical Parameters Compared for Size Frequency Distribution of 327
Beach Gravels: Examples from South Wales. Sedimentation of 128
Beach Structure Due to Wind-Driven Foam 691
Beach. The Orientation of *Donax* on an Atlantic Coast 1233
Beall, Jr., Arthur C. and Ojakangas, Richard W., note by 952
Bedding in the Recent Sediments of Mugu Lagoon, California. Graded 540
Bed Forms in Turbidites of the Hatch Formation, Devonian of New York State. Upper Flow Regime 1052
Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic Analysis of Key 175
Beds of the Colville Group, Northern Alaska. Cristobalite and Clinoptilolite in Bentonite 966
Bentonite Beds of the Colville Group, Northern Alaska. Cristobalite and Clinoptilolite in 966
Berryhill, Jr., H. L., McKee, E. D., and Crosby, E. J., article by 829
Bihar, India. Turbidite Structures from Barakar Rocks of Ramgarh Coal- Field, ... 699
Bijou Creek, Colorado, June 1965. Flood Deposits, ... 829
Biogenic Phosphate by Silica. Diagenetic Replacement and Solution of 1238
Biosparites from the Pleistocene of Barbados, West Indies. Diagenetic Fabrics in 1147
Bird Spring Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive -Regressive Sequence: The 377
Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in 852
Black and Brown Foraminiferal Sand from the Southern Part of the Great Barrier Reef 1023
Blatt, Harvey, article by 401
Blatt, Harvey, article by 1031
Bluck, Brian J., article by 128
Blue Adsorption by Fine Grained Sediments. Methylene 1221
Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the 1045
Bodies of Florida and the Bahamas. Carbonate Sand 556
Boggs Jr., Sam, article by 548
Boggs Jr., Sam, article by 908
Briggs, Garrett and Cline, L. M., article by 985
Brown Foraminiferal Sand from the Southern Part of the Great Barrier Reef. Black and 1023
Brown, Robert D. and Rich, Ernest I., discussion by 240

Caine, N., article by 796
Calcareous Concretions in Paleocene Strata of Texas. Secondary Gypsum Enveloping 1245
Calcareous Constituents of the Lameta Group around Jabalpur, M. P., India. Petrogenesis of the 425
Calcareous Sandstone Rhythms in the Upper Lias of England. Origin of Friable Sandstones— 1179
Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent 597
California: Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley 240
California. Dolomite from the Continental Slope off Southern 963
California. Graded Bedding in the Recent Sediments of Mugu Lagoon, ... 540
California. Grain-Flow Deposits and their Implications, Santa Ynez Mountains, ... 487
California: Reply to Comment by Brown and Rich. Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley 248
Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, With Illustrations from 1163
Cambrian K-Bentonite from Missouri. Mineralogy of an Upper 952
Cambro-Ordovician Sandstone from Rhourde El Baguel Field, Algeria. Occurrence of Pure, Well-Crystallized 1M Illite in 879
Canada—A Mississippian Analogue to Recent

Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, 365
Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow 377
Carbohydrate Residues in Some Fossil Specimens and Associated Sedimentary Matrix and Other Geological Samples. Distribution of 12
Carbonate. A Negative Replication for Electron Microscopy Study of 692
Carbonate Sand Bodies of Florida and the Bahamas 556
Carbonate Sediments. Kinetics and Diagenesis of 60
Carbonate Sedimentation on Hogsty Reef, a Bahamian Atoll 658
Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon Range Clark County, Nevada. Petrography of 377
Carbonates. Diagenesis of Skeletal 914
Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line 365
Carozzi, Albert V., article by 597
Carozzi, Albert V., Heath, Christopher P. and Lumsden, David N., article by 377
Central Australia. Winnowing—An Important Process in the Concentration of the Stairway Sandstone (Ordovician) Phosphorites of 818
Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic), 710
Chanda, S. K., article by 425
Chanda, S. K., note by 688
Chappell, John, article by 157
Characteristics of Clastic Quartz Grains. Original 401
Charlotte Harbor, Southwestern Florida. Sediments of 449
Charm, Walter B., note by 970
Chemical Composition of Illite 592
Chilingarian, George, Picard, Leo and Serruya, Collette, note by 695
(Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko 597
Cincinnatian Limestones. The American Upper Ordovician Standard. VIII R-Mode Factor Analysis of 649
Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon Range, 377
Clastic Quartz Grains. Original Characteristics of 401
Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta 1163
Classification. A Numerical Method for Sandstone 548
Clay Fabric and Its Relation to Structural Properties in Mid-Continent Pennsylvanian Sediments 610
Clay Mineralogy of the Glenwood Formation, Southeastern Minnesota and Adjacent Areas 863
Clay Minerals in Illinois Coals 205
Clay Minerals Southeastern United States. Transport and Deposition of 1084
Clays for Dry Particle-Size Analysis. Freeze Drying as a Rapid Method of Disaggregating Silts and 970
Clays in an Eocene Neritic Sand Bar: Addendum. Opal, Zeolites, and 240
Clays. The Axial Ratio of 956
Clay Suite. Variability of a River 971
Clemency, Charles V. and Izard, John E., note by 221
Cline, L. M. and Briggs, Garrett, article by 985
Clinoptilolite in Bentonite Beds of the Colville Group, Northern Alaska. Cristobalite and 966
Clinton Area, West-Central Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the 175
Coal-Field, Bihar, India. Turbidite Structures from Barakar Rocks of Ramgarh 699
Coals. Clay Minerals in Illinois 205
Coastal Plain of Israel. Factors Affecting the Lithification of Eolianite and Interpretation of its Environmental Significance in the 1189
Coast Beach. The Orientation of *Donax* on an Atlantic 1233
Coast of Somalia. Strontium Distribution in Recent Indian Ocean Sediments off the Eastern 957
Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory 597
Colburn, Ivan P. and Hampton, Monty A., article by 509
Colorado, June 1965. Flood Deposits, Bijou Creek, 829
Colville Group, Northern Alaska. Cristobalite and Clinoptilolite in Bentonite Beds of the 966
Combined Analysis of Size, Shape and Compositional Mode of Grains in Altered Sandstones 1250
Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley, California: 240
Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann 710
Compared for Size Frequency Distribution of Beach and River Sands. Dynamic Processes and Statistical Parameters 327
Comparison of Dip Azimuth Variability. Tabular and Trough Cross-Bedding: 80
Complex: Eosparite v. Neosparite. The " . . . sparite" 1247
Composite Detrital Grain from the Witwatersrand Conglomerates (South Africa). A 227
Compositional Mode of Grains in Altered Sandstones. Combined Analysis of Size, Shape and 1250
Composition During Transport. Variations in Mineral 235
Composition of Illite. Chemical 592
Concavo-Convex Particles Deposited from Experimental Turbidity Currents. The Orientation of 229
Concentration of the Stairway Sandstone

(Ordovician) Phosphorites of Central Australia. Winnowing—An Important Process in the... 818
Concretions from Israel. Sulfur Isotopes in Altered Pyrite... 961
Concretions from Western New York. Cone-In-Cone... 87
Concretions in Paleocene Strata of Texas. Secondary Gypsum Enveloping Calcareous... 1245
Concretions on Georges Bank. Fossiliferous... 1070
Cone-In-Cone Concretions from Western New York... 87
Conglomerates (South Africa). A Composite Detrital Grain from the Witwatersrand... 227
Conolly, J. R. and Ewing, W. M., article by... 44
Constituents of the Lameta Group around Jabalpur, M. P., India. Petrogenesis of the Calcareous... 425
Content in Quartzose Beach and Dune Sands, Dee Why, N. S. W. Shell... 869
Continental Shelf Sediment, Northwestern United States... 790
Continental Slope off Southern California. Dolomite from the... 963
Controlled Desiccation Patterns from Wadi Shiqma, Southern Israel. Ripple... 1243
Cook, P. J. article by... 818
Coral Reef Environment. Terrigeneous Sedimentation in a Shallow Water... 1001
Cores in Plastic. Preservation of Unconsolidated... 1200
Coring Unconsolidated Wet Sand, A Discussion. Plastic-Tube Technique for... 714
Creek, Colorado, June 1965. Flood Deposits, Bijou... 829
Cretaceous Mass Transport Deposits, Sacramento Valley, California: Comment on a Paper by Gary L. Peterson. Implications of Two... 240
Cretaceous Mass Transport Deposits, Sacramento Valley, California: Reply to Comment by Brown and Rich. Implications of Two... 248
Cristobalite and Clinoptilolite in Bentonite Beds of the Colville Group, Northern Alaska... 966
Crosby, E. J., Berryhill Jr., H. L. and McKee, E. D., article by... 829
Cross-Bedding: Comparison of Dip Azimuth Variability. Tabular and Trough... 80
Cross-Lamination in the Mesozoic Strata of South Wales. Supposed... 233
Crusts—Neglected Factors in Sedimentology. Development, Flotation, and Transportation of Mud... 73
Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental Significance of... 1163
Current Orientation of Shells. Wave and... 1124
Currents and Potentials During Diagenesis ("Electrodiagenesis"). Possible role of Electrical... 695
Currents. The Orientation of Concavo-Convex Particles Deposited from Experimental Turbidity... 229
Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic Analsysis of Key Beds... 175

Daloa, Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko (Chlorophora Excelsa),... 597
Davies, David K., article by... 1179
Dedolomitization. Experimental... 1216
Dedolomitization in Jurassic Rocks of Hamakhtesh Haqatan, Israel. Supratidal Dolomitization and... 760
Dedolomitization and the Development of Rhombohedral Pores in Limestones... 1204
Dee Why, N. S. W. Shell Content in Quartzose Beach and Dune Sands... 869
Defined by Settling Velocities of Heavy and Light Minerals. The Nature of a Fluvial Process as... 530
de Groot, K., article by... 1216
Delineating the Major Depositional Environments in Northern Port Phillip Bay, Victoria... 931
Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a... 852
Delta. The Orinoco... 297
Deposited from Experimental Turbidity Currents. The Orientation of Concavo-Convex Particles... 229
Depositional Environments in Northern Port Phillip Bay, Victoria. Delineating the Major... 931
Depositional Environments. Turbidite Sedimentary Structures and their Relationships to Proximal and Distal... 25
Deposition of Clay Minerals, Southeastern United States. Transport and... 1084
Deposits and Their Implications, Santa Ynez Mountains, California. Grain-Flow... 487
Deposits, Bijou Creek, Colorado, June 1965. Flood... 829
Deposits in the Ordovician of Western Maryland. Tidal Flat... 601
Deposits, Sacramento Valley, California: Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass Transport... 240
Deposits, Sacramento Valley, California: Reply to Comment by Brown and Rich. Implications of Two Cretaceous Mass Transport... 248
Desiccation Patterns from Wadi Shiqma, Southern Israel. Ripple Controlled... 1243
Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain... 1045
Determination of Sedimentation Rates by Magnetic Spherule Abundances... 1139
Determinations and Recycling of Sediments. Provenance... 1031
Detrital Grain from the Witwatersrand Conglomerates (South Africa). A Composite 227
Developing Suitable X-Ray Radiography Techniques for Thin Rock Slabs... 225
Development, Flotation, and Transportation of Mud Crusts—Neglected Factors in Sedimentology... 73
Development in Recent and Pleistocene Oolites from Southern Florida and the Bahamas. Diagenesis and Porosity... 355
Development of Rhombohedral Pores in Limestones. Dedolomitization and the... 1204
Devonian of New York State. Upper Flow Regime Bed Forms in Turbidites of the Hatch Formation,... 1052
Devonian Sonyea Group, New York. Quantitative Analysis of Turbidites in the Upper... 1012

Diagenesis and Low Rank Metamorphism in Humic Sediments. X-Ray Diffraction Techniques Applicable to Studies of..... 1006
Diagenesis and Porosity Development in Recent and Pleistocene Oolites from Southern Florida and the Bahamas..... 355
Diagenesis ("Electrodiagenesis"). Possible Role of Electric Currents and Potentials During..... 695
Diagenesis of Carbonate Sediments. Kinetics and..... 60
Diagenetic Fabrics in Biosparites from the Pleistocene of Barbados, West Indies..... 1147
Diagenetic Replacement and Solution of Biogenic Phosphate by Silica..... 1238
Differentiation of Beach and Dune Sands, Using Settling Velocities of Light and Heavy Minerals..... 514
Diffraction Techniques Applicable to Studies of Diagenesis and Low Rank Metamorphism in Humic Sediments. X-Ray..... 1006
Diagenesis of Skeletal Carbonates..... 914
Dip Azimuth Variability. Tabular and Trough Cross-Breeding: Comparison of..... 80
Directional Features of an Experimental Turbidite Fan—A Report of Progress..... 509
Disaggregating Silts and Clays for Dry Particle-Size Analysis. Freeze Drying as a Rapid Method of..... 970
Discontinuities in Limestones. Selective Neomorphism and Fabric..... 688
Distal Depositional Environments. Turbidite Sedimentary Structures and Their Relationship to Proximal and..... 25
Distinguishing Sedimentary Environments in New South Wales, Australia. Significance of Statistical Parameters for..... 1059
Distribution in Recent Indian Ocean Sediments off the Eastern Coast of Somalia. Strontium..... 957
Distribution of Beach and River Sands. Dynamic Processes and Statistical Parameters Compared for Size Frequency..... 327
Distribution of Carbohydrate Residues in Some Fossil Specimens and Associated Sedimentary Matrix and Other Geologic Samples.. 12
District, South Africa. Analcite in the Upper Karroo Sediments, Herschel..... 1236
Dolomite from the Continental Slope off Southern California..... 963
Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental Significance of Cryptalgal Limestones and..... 1163
Dolomitization and Dedolomitization in Jurassic Rocks of Hamakhtesh Haqatan, Israel. Supratidal..... 760
Dolomitization of the Mifflin Member Platteville Limestone in Southwest Wisconsin. The Marine..... 311
Donax on an Atlantic Coast Beach. The Orientation of..... 1233
Driscoll, Egbert G., article by..... 1117
Drying as a Rapid Method of Disaggregating Silts and Clays for Dry Particle-Size Analysis. Freeze..... 970
Dry Particle-Size Analysis. Freeze Drying as a Rapid Method of Disaggregating Silts and Clays for..... 970
Due to Wind-Driven Foam. A Beach Structure 691
Dune Sands, Dee Why, N. S. W. Shell Content in Quartzose Beach and..... 869
Dune Sands, Using Settling Velocities of Light and Heavy Minerals. Differentiation of Beach and..... 514
During Diagenesis ("Electrodiagenesis"). Possible Role of Electric Currents and Potentials..... 695
Dynamic Processes and Statistical Parameters Compared for Size Frequency Distribution of Beach and River Sands..... 327

Eastern Coast of Somalia. Strontium Distribution in Recent Indian Ocean Sediments off the..... 957
Electric Currents and Potentials During Diagenesis ("Electrodiagenesis"). Possible Role of..... 695
("Electrodiagenesis"). Possible Role of Electric Currents and Potentials During Diagenesis 695
Electronic Particle-Size Analyzer. Measurement of Roundness and Sphericity Parameters Using an..... 908
Electron Microscopy Study of Carbonate. A Negative Replication for..... 692
Ellensburg Formation, South-Central Washington. Graded Lahars in the Type Sections of the..... 438
England. Origin of Friable Sandstones—Calcerous Sandstone Rhythms in the Upper Lias of..... 1179
Enveloping Calcareous Concretions in Paleocene Strata of Texas. Secondary Gypsum 1245
Environmental Significance in the Coastal Plain of Israel. Factors Affecting the Lithification of Eolianite and Interpretation of its..... 1189
Environmental Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and.. 1163
Environments in New South Wales, Australia. Significance of Statistical Parameters for Distinguishing Sedimentary..... 1059
Environments in Northern Port Phillip Bay, Victoria. Delineating the Major Depositional..... 931
Environments. Turbidite Sedimentary Structures and their Relationship to Proximal and Distal Depositional..... 25
Environment. Terrigeneous Sedimentation in a Shallow Water Coral Reef..... 1001
Eocene Neritic Sand Bar: Addendum. Opal, Zeolites, and Clays in an..... 240
Eolianite and Interpretation of its Environmental Significance in the Coastal Plain of Israel. Factors Affecting the Lithification of..... 1189
Eosparite v. Neosparite. The " . . . sparite" Complex:..... 1247
Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the... 597
Ermanovics, I. F., note by..... 683
Estuary: Sedimentary and Geochemical Properties between Kingston and Haverstraw, New York. The Hudson River..... 475
Evamy, B. D., article by..... 1204
Evans, R. D., Wolfe, R. W., Swain, F. M., and Rogers, M. A., article by..... 12
Ewing, W. M. and Conolly, J. R., article by.... 44
Examples from South Wales. Sedimentation of Beach Gravels:..... 128
Experimental Dolomitization..... 1216
Experimental Field Study of Shell Abrasion... 1117
Experimental Turbidite Fan—A Report of

Progress. Directional Features of an..... 509
Experimental Turbidity Currents. The Orientation of Concavo-Convex Particles Deposited from..... 229
Extinction in Provenance Studies. Statistical Application of Plagioclase..... 683

Fabric and Its Relation to Structural Properties in Mid-Continent Pennsylvanian Sediments. Clay..... 610
Fabric Discontinuities in Limestones. Selective Neomorphism and..... 688
Fabrics in Biosparites from the Pleistocene of Barbados, West Indies. Diagenetic..... 1147
Fabrics of Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard and Douglas D. Bechmann. Comment on a Paper "Non-Opaque and Opaque Grain..... 710
Factor Analysis of Cincinnatian Limestone. The American Upper Ordivician Standard. VIII. R-Mode..... 649
Factors Affecting the Lithification of Eolianite and Interpretation of its Environmental Significance in the Coastal Plain of Israel.. 1189
Fagerstrom, J. A., article by..... 73
Fan—A Report of Progress. Directional Features of an Experimental Turbidite..... 509
Fayetteville Formation, Northwestern Arkansas. Slump Features,..... 804
Features of an Experimental Turbidite Fan—Report of Progress. Directional..... 509
Feldspars from the Lower Kaladgi Arkoses of Jamkhandi, Mysore State, India. Authigenic..... 707
Field, Algeria. Occurrence of Pure, Well-Crystallized 1M Illite in Cambro-Ordovician Sandstone from Rhourde El Baguel.. 879
Field. A Pocket Microscope for Grain Size Measurement in the..... 703
Field Study of Shell Abrasion. Experimental... 1117
Fillings in Marine Manganese Nodules. Aragonite Vein..... 68
Fine Grained Sediments. Methylene Blue Adsorption by..... 1221
Flat Deposits in the Ordovician of Western Maryland. Tidal..... 601
Flood Deposits, Bijou Creek, Colorado, June 1965..... 829
Flores, Romeo M., article by..... 624
Flores, Romeo M., note by..... 235
Florida and the Bahamas. Carbonate Sand Bodies of..... 556
Florida and the Bahamas. Diagenesis and Porosity Development in Recent and Pleistocene Oolites from Southern..... 355
Florida. Sediments of Charlotte Harbor, Southwestern..... 449
Florida. The Production of Lime Mud by Algae in South..... 633
Flotation, and Transportation of Mud Crusts—Neglected Factors in Sedimentology. Development,..... 73
Flow Regime Bed Forms in Turbidites of the Hatch Formation, Devonian of New York State. Upper..... 1052
Fluvial Process as Defined by Settling Velocities of Heavy and Light Minerals. The Nature of a..... 530
Flysch Sequences, Switzerland. Sedimentology of Prealpine..... 885
Foam. A Beach Structure Due to Wind-Driven 691
Foraminiferal Sand from the Southern Part of the Great Barrier Reef. Black and Brown.. 1023
Formation, Devonian of New York State. Upper Flow Regime Bed Forms in Turbidites of the Hatch..... 1052
Formation in Northeastern Minnesota. Stratigraphy and Sedimentology of the Middle Precambrian Rove..... 1154
Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud..... 1045
Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne..... 852
Formation (Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton..... 175
Formation of Northeast Central Texas. Petrology of the Simsboro..... 184
Formation, Northwestern Arkansas. Slump Features, Fayetteville..... 804
Formation, South-Central Washington. Graded Lahars in the Type Sections of the Ellensburg..... 438
Formation, Southeastern Minnesota and Adjacent Areas. Clay Mineralogy of the Glenwood..... 863
Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The Macumber..... 365
Formation (Upper Miocene-Pliocene), Timor. Greywackes with a Primary Matrix from the Viqueque..... 5
Forms in Turbidites of the Hatch Formation, Devonian of New York State. Upper Flow Regime Bed..... 1052
Fossiliferous Concretions on Georges Bank.... 1070
Fossil Specimens and Associated Sedimentary Matrix and Other Geologic Samples. Distribution of Carbohydrate Residues in Some..... 12
Fossil Strand Lines from Grain-Size Analysis. Recognizing..... 157
Freeport Sandstone (Middle Allegheny) of Eastern Ohio. Relationship of Geometry to the Origin of the Lower..... 624
Freeze Drying as a Rapid Method of Disaggregating Silts and Clays for Dry Particle-Size Analysis..... 970
Frequency Distribution of Beach and River Sands. Dynamic Processes and Statistical Parameters Compared for Size..... 327
Friable Sandstones—Calcareous Sandstone Rhythms in the Upper Lias of England. Origin of..... 1179
Friedman, Gerald M., article by..... 327
Friedman, S. A., article by..... 175
Frost, Jack G., note by..... 692
Fuller, A. O., note by..... 1236

Garrison, Robert E., and Mutch, Thomas A., article by..... 1139
Generated by the Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented Sandstones..... 597
Gentile, Richard J., Reesman, A. L., and Keller, W. D., article by..... 215
Geochemical Properties Between Kingston and Haverstraw, New York. The Hudson

River Estuary: Sedimentary and..... 475
Geologic Samples. Distribution of Carbohydrate Residues in Some Fossil Specimens and Associated Sedimentary Matrix and Other..... 12
Geometry to the Origin of the Lower Freeport Sandstone (Middle Allegheny) of Eastern Ohio. Relationship of..... 624
Georges Bank. Fossiliferous Concretions on.... 1070
Gibbons, G. S., article by..... 869
Gilman, Richard A. and Metzger, William J., article by..... 87
Girvanella in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga..... 1045
Glenwood Formation, Southeastern Minnesota and Adjacent Areas. Clay Mineralogy of the..... 863
Gluskoter, Harold J., article by..... 205
Goldberg, Moshe, article by..... 760
Goldberg, Moshe and Karcz, Iaakov, note by.. 1243
Graded Bedding in the Recent Sediments of Mugu Lagoon, California..... 540
Graded Lahars in the Type Sections of the Ellensburg Formation, South-Central Washington..... 438
Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal..... 1045
Grain Fabrics of Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque..... 710
Grain-Flow Deposits and Their Implications, Santa Ynez Mountains, California..... 487
Grain from the Witwatersrand Conglomerates (South Africa). A Composite Detrital.... 227
Grains in Altered Sandstones. Combined Analysis of Size, Shape and Compositional Mode of..... 1250
Grains. Original Characteristics of Clastic Quartz..... 401
Grain-Size Analysis. Recognizing Fossil Strand Lines from..... 157
Grain Size Measurement in the Field. A Pocket Microscope for..... 703
Gravels: Examples from South Wales. Sedimentation of Beach..... 128
Gray, R. S., article by..... 774
Great Barrier Reef. Black and Brown Foraminiferal Sand from the Southern Part of the.. 1023
Greywackes with a Primary Matrix from the Viqueque Formation (Upper Miocene-Pliocene), Timor..... 5
Griffin, George M., article by..... 1006
Gross, M. G., McManus, D. A. and Ling. H-Y, article by..... 790
Group Around Jabalpur, M. P., India. Petrogenesis of the Calcareous Constituents of the Lameta..... 425
Group, New York. Quantitative Analysis of Turbidites in the Upper Devonian Sonyea 1012
Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring 377
Gulf. The Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian..... 365
Gypsum Enveloping Calcareous Concretions in Paleocene Strata of Texas. Secondary.. 1245

Hails, John R., article by..... 1059
Hamakhtesh Haqatan, Israel. Supratidal Dolomitization and Dedolomitization in Jurassic Rocks of..... 760
Hampton, Monty A. and Colburn, Ivan P., article by..... 509
Hand, Bryce M., article by..... 514
Haqatan, Israel. Supratidal Dolomitization and Dedolomitization in Jurassic Rocks of Hamakhtesh..... 760
Harbor, Southwestern Florida. Sediments of Charlotte..... 449
Hatch Formation, Devonian of New York State. Upper Flow Regime Bed Forms in Turbidites of the..... 1052
Haverstraw New York. The Hudson River Estuary: Sedimentary and Geochemical Properties Between Kingston and..... 475
Heath, Christopher P., Lumsden, David N. and Carozzi, Albert V., article by..... 377
Heavy and Light Minerals. The Nature of a Fluvial Process as Defined by Settling Velocities of..... 530
Heavy Minerals. A Rapid Method for Determining Weight Percentages of Unsieved 521
Heavy and Light Minerals. Differentiation of Beach and Dune Sands, Using Settling Velocities of Light and..... 514
Herschel District, South Africa. Analcite in the Upper Karroo Sediments..... 1236
Hills, L. V., Trettin, H. P. and Agterberg, F. P., article by..... 852
Hogsty Reef, a Bahamian Atoll. Carbonate Sedimentation on..... 658
Horowitz, Daniel, note by..... 1238
Huang, Ter-Chien and Goodell, H. G., article by..... 449
Hubert, John F., article by..... 885
Hudson River Estuary: Sedimentary and Geochemical Properties Between Kingston and Haverstraw..... 475
Humic Sediments. X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and Low Rank Metamorphism in..... 1006
Hunter, Ralph, E., article by..... 521

Illinois Coals. Clay Minerals in..... 205
Illite. Chemical Composition of..... 592
Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, with..... 1163
Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley, California: Comment on a Paper by Gary L. Peterson..... 240
Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley, California: Reply to Comment by Brown and Rich..... 248
Implications, Santa Ynez Mountains, California. Grain-Flow Deposits and Their..... 487
India. Authigenic Feldspars from the Lower Kaladgi Arkoses of Jamkhandi, Mysore State,..... 707
Indian Ocean Sediments off the Eastern Coast of Somalia. Strontium Distribution in Recent..... 957
India. Petrogenesis of the Calcareous Constitu-

ents of the Lameta Group around Jabalpur, M. P., 425
India. Turbidite Structure from Barakar Rocks of Ramgarh Coal-Field, Bihar 699
Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, West-Central 175
Indicator. Strike-Dip 1248
Instrument for Measuring Planes and Vectors In Space. An 1241
Interpretation of its Environmental Significance in the Coastal Plain of Israel. Factors Affecting the Lithification of Eolianite and 1189
Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree 597
Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville 852
Isotopes in Altered Pyrite Concretions from Isreal. Sulfur 961
Israel. Factors Affecting the Lithification of Eolanite and Interpretation of its Environmental Significance in the Coastal Plain of 1189
Israel. Ripple Controlled Desiccation Patterns from Wadi Shiqma, Southern 1243
Israel. Sulfur Isotopes in Altered Pyrite Concretions from 961
Israel. Supratidal Dolomitization and Dedolomitization in Jurassic Rocks of Hamakhtesh Haqatan, 760
Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko (Chloro-Phora Excelsa), Daloa, 597
Izard, John E. and Clemency, Charles V., note by 221

Jabalpur, M. P., India. Petrogenesis of the Calcareous Constituents of the Lameta Group Around 425
Jamkhandi, Mysore State, India. Authigenic Feldspars from the Lower Kaladgi Arkoses of 707
Jurassic Rocks of Hamakhtesh Haqatan, Israel. Supratidal Dolomitization and Dedolomitization in 760

Kaladgi Arkoses of Jamkhandi, Mysore State, India. Authigenic Feldspars from the Lower 707
Kaolinitic Nodules in Shale. Allophane and Na-Rich Alunite From 215
Karcz, Iaakov and Goldberg, Moshe note by 1243
Karroo Sediments, Herschel District, South Africa. Analcite in the Upper 1236
K-Bentonite from Missouri. Mineralogy of an Upper Cambrian 952
Keller, George H. and Richards, Adrian F., article by 102
Keller, W. D. and Reesman, A. L., article by 592
Keller, W. D., Gentile, Richard J., and Reesman, A. L., article by 215
Key Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic Analysis of 175
Kinetics and Diagenesis of Carbonate Sediments 60
Kingston and Haverstraw, New York. The Hudson River Estuary: Sedimentary and Geochemical Properties between 475
Klement, Karl W., and Toomey, Donald Francis, article by 1045
Koenig, Karl J. and Morelock, Jack, article by 1001
Kohls, Donald W., article by 184

Lagoon, California. Graded Bedding in the Recent Sediments of Mugu 540
Lahars in the Type Sections of the Ellensburg Formation, South-Central Washington. Graded 438
Lake Sediments. A Square-Rod Piston Sampler for 975
Lameta Group around Jabalpur, M. P., India. Petrogenesis of the Calcareous Constituents of the 425
Land, L. S. article by 914
Large-Scale Rhomboid Ripples, Minas Basin, Nova Scotia. An Occurrence of 705
Late Paleozoic Sediments of the Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and Source Areas of 985
Lias of England. Origin of Friable Sandstones —Calcareous Sandstone Rythms in the Upper 1179
Lias, South Wales. Post-Depositional Structures in the 166
Light and Heavy Minerals. Differentiation of Beach and Dune Sands Using Settling Velocities of 514
Light Minerals. The Nature of a Fluvial Process as Defined by Settling Velocities of Heavy and 530
Lime Mud by Algae in South Florida. The Production of 633
Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and 1045
Limestone in Southwest Wisconsin. The Marine Dolomitization of the Mifflin Member Platteville 311
Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental Significance of Cryptalgal 1163
Limestones. Dedolomitization and the Development of Rhombohedral Pores in 1204
Limestones. The American Upper Ordovician Standard. VIII. R-Mode Factor Analysis of Cincinnatian 649
Limestones. Selective Neomorphism and Fabric Discontinuities in 688
Lines from Grain-Size Analysis. Recognizing Fossil Strand 157
Ling, H-Y, Gross, M. G., and McManus, D. A., article by 790
Link, A. G. article by 931
Lithification of Eolianite and Interpretation of its Environmental Significance in the Coastal Plain of Israel. Factors Affecting the 1189
Littoral Zone Tidal-Cycle Sedimentation 677
Lord, C. W. and Shannon, J. P. Jr., article by 1200
Lower Freeport Sandstone Middle Allegheny of Eastern Ohio. Relationship of Geometry to the Origin of the 624
Lower Kaladgi Arkoses of Jamkhandi, Mysore State, India. Authigenic Feldspars from the 707
Lower Ordovician of West Texas. Role of the

Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime Mud Formation in the 1045
(Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation 852
Low Rank Metamorphism in Humic Sediments. X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and ... 1006
Lumsden, David N., Carozzi, Albert V. and Heath, Christopher P., article by 377

Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The 365
Magnetic Spherule Abundances. Determination of Sedimentation Rates by 1139
Maiklem, W. R. article by 1023
Major Depositional Environments in Northern Port Phillip Bay, Victoria. Delineating the 931
Malacca Straight, Southeast Asia. Sediments of the 102
Manganese Nodules. Aragonite Vein Fillings in Marine 68
Marine Dolomitization of the Mifflin Member Platteville Limestone in Southwest Wisconsin. The 311
Marine Manganese Nodules. Aragonite Vein Fillings in 68
Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the 365
Maryland. Tidal Flat Deposits in the Ordovician of Western 601
Mass Transport Deposits, Sacramento Valley, California: Comment on a paper by Gary L. Peterson. Implications of Two Cretaceous 240
Mass Transport Deposits, Sacramento Valley, California: Reply to Comment by Brown and Rich. Implications of Two Cretaceous 248
Matrix and Other Geologic Samples. Distribution of Carbohydrate Residues in Some Fossil Specimens and Associated Sedimentary 12
Matrix from the Viqueque Formation (Upper Miocene-Pliocene), Timor. Greywackes with a Primary 5
Matter, Albert, article by 601
Matthews, R. K., article by 1147
McCrone, Alistair W., article by 475
McFarlin, Peter F., article by 68
McKee, E. D., Crosby, E. J. and Berryhill Jr., H. L., article by 829
McManus, D. A., Ling, H-Y and Gross, M. G., article by 790
McMullen, R. M. and Swift, D. J. P., note by .. 705
Measurement in the Field. A Pocket Microscope for Grain Size 703
Measurement of Roundness and Sphericity Parameters Using an Electronic Particle-Size Analyzer 908
Measuring Planes and Vectors in Space. An Instrument for 1241
Mechanical Analysis of Subaqueous Sediments. Methodology of 96
Meckel, L. D., article by 80
Melson, William G. and Pierce, J. W., note by. 963
Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern 852
Member Platteville Limestone in Southwest Wisconsin. The Marine Dolomitization of the Mifflin 311
Mesozoic Strata of South Wales. Supposed Cross-Lamination in the 233
Metamorphism in Humic Sediments. X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and Low Rank 1006
Method for Determining Weight Percentages of Unsieved Heavy Minerals. A Rapid 521
Method of Disaggregating Silts and Clays for Dry Particle-Size Analysis. Freeze Drying as a Rapid 970
Methodology of Mechanical Analysis of Subaqueous Sediments 96
Methylene Blue Adsorption by Fine Grained Sediments 1221
Metzger, William J. and Gilman, Richard A., article by 87
Meyerhoff, A. A., discussion by 240
Microscope for Grain Size Measurement in the Field. A Pocket 703
Microscopy Study of Carbonates. A Negative Replication for Electron 692
(Middle Pennsylvanian) in the Clinton Area, West-Central Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton Formation 175
Middle Precambrian Rove Formation in Northeastern Minnesota. Stratigraphy and Sedimentology of the 1154
Middleton, G. V., note by 229
Mifflin Member Platteville Limestone in Southwest Wisconsin. The Marine Dolomitization of the 311
Milliman, John P., article by 658
Minas Basin, Nova Scotia. An Occurrence of Large-Scale Rhomboid Ripples, ... 705
Mineral Composition During Transport. Variations in 235
Mineralogy of an Upper Cambrian K-Bentonite from Missouri 952
Mineralogy of the Glenwood Formation, Southeastern Minnesota and Adjacent Areas. Clay 863
Minerals. A Rapid Method for Determining Weight Percentages of Unsieved Heavy ... 521
Minerals. Differentiation of Beach and Dune Sands, Using Settling Velocities of Light and Heavy 514
Minerals in Illinois Coals. Clay 205
Minerals, Southeastern United States. Transport and Deposition of Clay 1084
Minerals. The Nature of a Fluvial Process as Defined By Settling Velocities of Heavy and Light 530
Minnesota and Adjacent Areas. Clay Mineralogy of the Glenwood Formation, Southeastern 863
Minnesota. Stratigraphy and Sedimentology of the Middle Precambrian Rove Formation in Northeastern 1154
Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada—A 365
Missouri. Mineralogy of an Upper Cambrian K-Bentonite from 952
Mode of Grains in Altered Sandstones. Com-

bined Analysis of Size, Shape and Compositional..... 1250
Morelock, Jack and Koenig, Karl J., article by..... 1001
Morey, G. B., article by..... 1154
Mountains, California. Grain-Flow Deposits and Their Implications, Santa Ynez..... 487
Mountains, Southeastern Oklahoma. Paleocurrents and Source Areas of Late Paleozoic Sediments of the Ouachita..... 985
Mud by Algae in South Florida. The Production of Lime..... 633
Mud Crusts—Neglected Factors in Sedimentology. Development, Flotation, and Transportation of..... 73
Mugu Lagoon, California. Graded Bedding in the Recent Sediments of..... 540
Müller, German, note by..... 703
Müller, German, note by..... 957
Mutch, Thomas A. and Garrison, Robert E., article by..... 1139
Mysore State, India. Authigenic Feldspars from the Lower Kaladgi Arkoses of Jamkhandi,..... 707

Nagaraja, H. R. and Rajulu, B. V. Govinda, note by..... 707
Nagle, J. Stewart, article by..... 1124
Na-Rich Alunite from Kaolinitic Nodules in Shale. Allophane and..... 215
Nature of a Fluvial Process as Defined by Settling Velocities of Heavy and Light Minerals. The..... 530
Negative Replication for Electron Microscopy Study of Carbonate. A..... 692
Neiheisel, James and Weaver, Charles E., article by..... 1084
Neomorphism and Fabric Discontinuities in Limestones. Selective..... 688
Neosparite. The "... sparite" Complex: Eosparite v..... 1247
Neritic Sand Bar: Addendum. Opal, Zeolites, and Clays in an Eocene..... 240
New South Wales, Australia. Significance of Statistical Parameters for Distinguishing Sedimentary Environments in..... 1059
New York. Cone-In-Cone Concretions from Western..... 87
New York. Quantitative Analysis of Turbidites in the Upper Devonian Sonyea Group..... 1012
New York State. Upper Flow Regime Bed Forms in Turbidites of the Hatch Formation, Devonian..... 1052
New York. X-Ray Study of the Sedimentary Pyrite of Western..... 221
Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon, Range, Clark County,..... 377
Nichols, R. A. H., note by..... 1247
Nishi, Charles K. and Prokopovich, Nikola P., article by..... 96
Nissenbaum, Arie and Rafter, T. A., note by... 961
Nodules. Aragonite Vein Fillings in Marine Manganese..... 68
Nodules in Shale. Allophane and Na-Rich alunite from Kaolinitic..... 215
Non-Marine Sediments in the San Pedro Valley, Arizona. Petrography of the Upper Cenezoic..... 774
"Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard and Douglas D. Beckmann. Comments on a Paper..... 710
Northeast Central Texas. Petrology of the Simsboro Formation of..... 184
Northeastern Minnesota. Stratigraphy and Sedimentology of the Middle Precambrian Rove Formation in..... 1154
Northern Alaska. Cristobalite and Clinoptilolite in Bentonite Beds of the Colville Group,..... 966
Northern Port Phillip Bay, Victoria. Delineating the Major Depositional Environments in..... 931
Northwestern Arkansas. Slump Features, Fayetteville Formation,..... 804
Northwestern Melville Island, Arctic Archipelago. Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of..... 852
Northwestern United States. Continental Shelf Sediment,..... 790
Nova Scotia. An Occurrence of Large-Scale Rhomboid Ripples, Minas Basin,..... 705
Numerical Method for Sandstone Classification. A..... 548

Occurrence of Large-Scale Rhomboid Ripples, Minas Basin, Nova Scotia. An..... 705
Occurrence of Pure, Well-Crystallized 1M Illite in Cambro-Ordovician Sandstone from Rhourde El Baguel Field, Algeria..... 879
Ocean Sediments off the Eastern Coast of Somalia. Strontium Distribution in Recent Indian..... 957
Odom, I. Edgar, article by..... 610
Ojakangas, Richard W., and Beall Jr., Arthur C., note by..... 952
Oklahoma. Paleocurrents and Source Areas of Late Paleozoic Sediments of the Ouachita Mountains Southeastern..... 985
Oolites from Southern Florida and the Bahamas. Diagenesis and Porosity Development in Recent and Pleistocene..... 355
Opal, Zeolites, and Clays in an Eocene Neritic Sand Bar: Addendum..... 240
Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic) Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and..... 710
Ordovician of Southwestern Alberta. Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and..... 1163
Ordovician of Western Maryland. Tidal Flat Deposits in the..... 601
Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower..... 1045
(Ordovician) Phosphorites of Central Australia. Winnowing—An Important Process in the Concentration of the Stairway Sandstone..... 818
Ordovician Standard. VIII. R-Mode Factor Analysis of Cincinnatian Limestones. The The American Upper..... 649
Orientation of Concavo-Convex Particles Deposited from Experimental Turbidity Currents. The..... 229
Orientation of *Donax* on an Atlantic Coast Beach. The..... 1233
Orientation of Shells. Wave and Current..... 1124

Original Characteristics of Clastic Quartz Grains ... 401
Origin of Friable Sandstones—Calcareous Rhythms in the Upper Lias of England ... 1179
Origin of the Lower Freeport Sandstone (Middle Allegheny) of Eastern Ohio. Relationship of Geometry to the ... 624
Orinoco Delta. The ... 297
Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and Source Areas of Late Paleozoic Sediments of the ... 985

Paleocene Strata of Texas. Secondary Gypsum Enveloping Calcareous Concretions in ... 1245
Paleocurrents and Paleoslopes: A Discussion ... 1252
Paleocurrents and Source Areas of Late Paleozoic Sediments of the Ouachita Mountains, Southeastern Oklahoma ... 985
Paleocurrent Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago ... 852
Paleoslopes: A Discussion. Paleocurrents and ... 1252
Paleozoic Sediments of the Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and Source Areas of Late ... 985
Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a ... 710
Parameters Compared for Size Frequency Distribution of Beach and River Sands. Dynamic Processes and Statistical ... 327
Parameters for Distinguishing Sedimentary Environments in New South Wales, Australia. Significance of Statistical ... 1059
Parameters Using an Electronic Particle-Size Analyzer. Measurement of Roundness and and Sphericity ... 908
Parham, Walter and Austin, George, article by ... 863
Parizek, Richard R., note by ... 1248
Particles Deposited from Experimental Turbidity Currents. The Orientation of Concavo-Convex ... 229
Particle-Size Analysis. Freeze Drying as a Rapid Method of Disaggregating Silts and Clays for Dry ... 970
Particle-Size Analyzer. Measurement of Roundness and Sphericity Parameters Using an Electronic ... 908
Part of the Great Barrier Reef. Black and Brown Foraminiferal Sand from the Southern ... 1023
Patchen, D. G., note by ... 225
Patterns from Wadi Shiqma, Southern Israel. Ripple Controlled Desiccation ... 1243
(Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group ... 377
Percentages of Unsieved Heavy Minerals. A Rapid Method for Determining Weight ... 521
Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the ... 365
Peterson. Implications of Two Cretaceous Mass Transport Deposits, Sacramento Valley, California: Comment on a Paper by Gary L ... 240
Peterson, Gary L., reply by ... 248
Petrogenesis of the Calcareous Constituents of the Lameta Group around Jabalpur, M. P., India ... 425
Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian) Arrow Canyon Range, Clark County, Nevada ... 377
Petrology of the Simsboro Formation of Northeast Central Texas ... 184
Petrography of the Upper Cenozoic Non-Marine Sediments in the San Pedro Valley, Arizona ... 774
Phillip Bay, Victoria. Delineating the Major Depositional Environments in Northern Port ... 931
Phosphate by Silica. Diagenetic Replacement and Solution of Biogenic ... 1238
Phosphorites of Central Australia. Winnowing —An Important Process in the Concentration of the Stairway Sandstone (Ordovician) ... 818
Pierce, J. W. and Melson, William G., note by ... 963
Piston Sampler for Lake Sediments. A Square-Rod ... 975
Plagioclase Extinction in Provenance Studies. Statistical Application of ... 683
Plain of Israel. Factors Affecting the Lithification of Eolianite and Interpretation of its Environmental Significance in the Coastal ... 1189
Planes and Vectors in Space. An Instrument for Measuring ... 1241
Plastic. Preservation of Unconsolidated Cores in ... 1200
Plastic-Tube Technique for Coring Unconsolidated Wet Sand ... 714
Platteville Limestone in Southwest Wisconsin. The Marine Dolomitization of the Mifflin Member ... 311
Pleistocene of Barbados, West Indies. Diagenetic Fabrics in Biosparites from the ... 1147
Pleistocene Oolites from Southern Florida and the Bahamas. Diagenesis and Porosity Development in Recent and ... 355
Pocket Microscope for Grain-Size Measurement in the Field. A ... 703
Pores in Limestones. Dedolomitization and the Development of Rhombohedral ... 1204
Porosity Development in Recent and Pleistocene Oolites from Southern Florida and the Bahamas. Diagenesis and ... 355
Port Phillip Bay, Victoria. Delineating the Major Depositional Environments in Northern ... 931
Possible Role of Electrical Currents and Potentials During Diagenesis ("Electrodiagenesis") ... 695
Post-Depositional Structures in the Lias, South Wales ... 166
Potentials During Diagenesis ("Electrodiagenesis"). Possible Role of Electrical Currents and ... 695
Prealpine Flysch Sequences, Switzerland. Sedimentology of ... 885
Precambrian Rove Formation in Northeastern Minnesota. Stratigraphy and Sedimentology of the Middle ... 1154
Preservation of Unconsolidated Cores in Plastic 1200
Primary Matrix from the Viqueque Formation (Upper Miocene-Pliocene), Timor. Greywackes with a ... 5
Process as Defined by Settling Velocities of Heavy and Light Minerals. The Nature of a Fluvial ... 530

Process in the Concentration of the Stairway Sandstone (Ordovician) Phosphorites of Central Australia. Winnowing—An Important ... 818
Processes and Statistical Parameters Compared for Size Frequency Distribution of Beach and River Sands. Dynamic ... 327
Production of Lime Mud by Algae in South Florida. The ... 633
Prokopovich, Nikola P. and Nishi, Charles K., article by ... 96
Properties between Kingston and Haverstraw New York. The Hudson River Estuary: Sedimentary and Geochemical ... 475
Properties in Mid-Continent Pennsylvanian Sediments. Clay Fabric and its Relation to Structural ... 610
Provenance Determinations and Recycling of Sediments ... 1031
Provenance Studies. Statistical Application of Plagioclase Extinction in ... 683
Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime ... 365
Proximal and Distal Depositional Environments. Turbidite Sedimentary Structures and their Relationship to ... 25
Puerto Rico Trench. Sedimentation in the ... 44
Pure, Well-Crystallized 1M Illite in Cambro-Ordovician Sandstone from Rhourde El Baguel Field, Algeria. Occurrence of ... 879
Pyrite Concretions from Israel. Sulfur Isotopes in Altered ... 961
Pyrite of Western New York. X-Ray Study of the Sedimentary ... 221

Quantitative Analysis of Turbidites in the Upper Devonian Sonyea Group, New York. 1012
Quartzose Beach and Dune Sands, Dee Why, N. S. W. Shell Content in ... 869
Quartz Grains. Original Characteristics of Clastic ... 401

R-Mode Factor Analysis of Cincinnatian Limestones. The American Upper Ordovician Standard. VIII ... 649
Radiography Techniques for Thin Rock Slabs. Developing Suitable X-Ray ... 225
Rafter, T. A. and Nissenbaum, Arie, note by ... 961
Rajulu, B. V. Govinda and Nagaraja, H. R., note by ... 707
Ramgarh Coal-Field, Bihar, India. Turbidite Structures from Barakar Rocks of ... 699
Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon ... 377
Rank Metamorphism in Humic Sediments. X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and Low ... 1006
Rapid Method for Determining Weight Percentages of Unsieved Heavy Minerals. A ... 521
Rapid Method of Disaggregating Silts and Clays for Dry Particle-Size Analysis. Freeze Drying as a ... 970
Rates by Magnetic Spherule Abundances. Determination of Sedimentation ... 1139
Ratio of Clays. The Axial ... 956
Recent and Pleistocene Oolites from Southern Florida and the Bahamas. Diagenesis and Porosity Development in ... 355
Recent Calcite-Cemented Sandstone Generated by the Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast ... 597
Recent Indian Ocean Sediments off the Eastern Coast of Somalia. Strontium Distribution in ... 957
Recent Sediments of Mugu Lagoon, California. Graded Bedding in ... 540
Recent Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to ... 365
Recognizing Fossil Strand Lines from Grain-Size Analysis ... 157
Recycling of Sediments. Provenance Determinations and ... 1031
Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in ... 710
Reef, a Bahamian Atoll. Carbonate Sedimentation on Hogsty ... 658
Reef. Black and Brown Foraminiferal Sand from the Southern Part of the Breat Garrier ... 1023
Reef Environment. Terrigeneous Sedimentation in a Shallow Water Coral ... 1001
Reese, A. I., discussion by ... 710
Reesman, A. L. and Keller, W. D., article by ... 592
Reesman, A. L., Keller, W. D. and Gentile, Richard J., article by ... 215
Regime Bed Forms in Turbidites of the Hatch Formation, Devonian of New York State. Upper Flow ... 1052
Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive- ... 377
Relation to Structural Properties in Mid-Continent Pennsylvanian Sediments. Clay Fabric and its ... 610
Relationship of Geometry to the Origin of the Lower Freeport Sandstone (Middle Allegheny) of Eastern Ohio ... 624
Relationship to Proximal and Distal Depositional Environments. Turbidite Sedimentary Structures and their ... 25
Replacement and Solution of Biogenic Phosphate by Silica. Diagenetic ... 1238
Replication for Electron Microscopy Study of Carbonate. A Negative ... 692
Residues in Some Fossil Specimens and Associated Sedimentary Matrix and Other Geologic Samples. Distribution of Carbohydrate ... 12
Reynolds, R. C. and Anderson, D. M., note by ... 966
Rhombohedral Pores in Limestones. Dedolomitization and the Development of ... 1204
Rhomboid Ripples, Minas Basin, Nova Scotia. An Occurrence of Large-Scale ... 705
Rhourde El Baguel Field, Algeria. Occurrence of Pure, Well-Crystallized 1M Illite in Cambro-Ordovician Sandstone from ... 879
Rhythms in the Upper Lias of England. Origin of Friable Sandstones—Calcareous Sandstone ... 1179
Rich, Ernest I., and Brown, Jr., Robert D., discussion by ... 240
Richards, Adrian F. and Keller, George H., article by ... 102
Richards, Horace G., Stanley, Daniel J. and Swift, Donald J. P., article by ... 1070
Ripple Controlled Desiccation Patterns from Wadi Shiqma, Southern Israel ... 1243

Ripples, Minas Basin, Nova Scotia. An Occurrence of Large-Scale Rhomboid 705
River Clay Suite. Variability of a 971
River Estuary: Sedimentary and Geochemical Properties between Kingston and Haverstraw, New York. The Hudson 475
River Sands. Dynamic Processes and Statistical Parameters Compared for Size Frequency Distribution of Beach and 327
Robinson, Robert B., article by 355
Rock Slabs. Developing Suitable X-Ray Radiography Techniques for Thin 225
Rocks of Hamakhtesh Haqatan, Israel. Supratidal Dolomitization and Dedolomitization in Jurassic 760
Rocks of Ramgarh Coal-Field, Bihar, India. Turbidite Structures from Barakar 699
Rogers, M. A., Evans, R. D., Wolfe, R. W. and Swain, F. M., article by 12
Role of Electrical Currents and Potentials During Diagenesis ("Electrodiagenesis"). Possible 695
Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas 1045
Roundness and Sphericity Parameters Using an Electronic Particle-Size Analyzer. Measurement of 908
Rove Formation in Northeastern Minnesota. Stratigraphy and Sedimentology of the Middle Precambrian 1154

Sacramento Valley, California: Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass Transport Deposits, . 240
Sacramento Valley, California: Reply to Comment by Brown and Rich, Implications of Two Cretaceous Mass Transport Deposits, . 248
Sampler for Lake Sediments. A Square-Rod Piston 975
Samples. Distribution of Carbohydrate Residues in Some Fossil Specimens and Associated Sedimentary Matrix and Other Geologic ... 12
Sand. Automatic Analysis of Tracer 749
Sand Bar: Addendum. Opal, Zeolites, and Clays in an Eocene Neritic 240
Sand Bodies of Florida and the Bahamas. Carbonate 556
Sand from the Southern part of the Great Barrier Reef. Black and Brown Foraminiferal 1023
Sand. Plastic-Tube Technique for coring Unconsolidated Wet 714
Sands, Dee Why, N. S. W. Shell Content in Quartzose Beach and Dune 869
Sands. Dynamic Processes and Statistical Parameters Compared for Size Frequency Distribution of Beach and River 327
Sands, Using Settling Velocities of Light and Heavy Minerals. Differentiation of Beach and Dune 514
Sandstones—Calcareous Sandstone Rhythms in the Upper Lias of England. Origin of Friable 1179
Sandstone Classification. A Numerical Method for 548
Sandstone from Rhourde El Baguel Field, Algeria. Occurrence of Pure, Well-Crystallized 1M Illite in Cambro-Ordovician 879
Sandstone Generated by the Equatorial Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented 597
Sandstone (Ordovician) Phosphorites of Central Australia. Winnowing—An Important Process in the Concentration of the Stairway ... 818
Sandstone (Middle Allegheny) of Eastern Ohio. Relationship of Geometry to the Origin of the Lower Freeport 624
Sandstone Rhythms in the Upper Lias of England. Origin of Friable Sandstones—Calcareous 1179
Sandstones. Combined Analysis of Size, Shape, and Compositional Mode of Grains in Altered 1250
San Pedro Valley, Arizona. Petrography of the Upper Cenezoic Non-Marine Sediments in the 774
Santa Ynez Mountains, California. Grain-Flow Deposits and Their Implications, ... 487
Schenk, Paul E., article by 365
Schidlowski, Manfred, note by 227
Schleh, E. E., note by 1245
Schmaltz, Robert F., article by 60
Schmincke, Hans-Ulrich, article by 438
Schwartz, Maurice L., note by 677
Secondary Gypsum Enveloping Calcareous Concretions in Paleocene Strata of Texas 1245
Sedimentary and Geochemical Properties between Kingston and Haverstraw, New York. The Hudson River Estuary: 475
Sedimentary Environments in New South Wales, Australia. Significance of Statistical Parameters for Distinguishing 1059
Sedimentary Matrix and Other Geologic Samples. Distribution of Carbohydrate Residues in Some Fossil Specimens and Associated 12
Sedimentary Pyrite of Western New York. X-Ray Study of the 221
Sedimentary Structures and Their Relationship to Proximal and Distal Depositional Environments. Turbidite 25
Sedimentation in a Shallow Water Coral Reef Environment. Terrigeneous 1001
Sedimentation in the Puerto Rico Trench 44
Sedimentation. Littoral Zone Tidal-Cycle 677
Sedimentation of Beach Gravels: Examples from South Wales 128
Sedimentation on Hogsty Reef, a Bahamian Atoll. Carbonate 658
Sedimentation Rates by Magnetic Spherule Abundances. Determination of 1139
Sedimentology of Prealpine Flysch Sequences, Switzerland 885
Sedimentology of the Middle Precambrian Rove Formation in Northeastern Minnesota. Stratigraphy and 1154
Sediment, Northwestern United States. Continental Shelf 790
Sediments. A Square-Red Piston Sampler for Lake 975
Sediments. Clay Fabric and its Relation to Structural Properties in Mid-Continent Pennsylvanian 610
Sediments, Herschel District, South Africa. Analcite in the Upper Karroo, ... 1236
Sediments in the San Pedro Valley, Arizona. Petrography of the Upper Cenozoic Non-Marine 774
Sediments. Kinetics and Diagenesis of Carbonate 60
Sediments. Methylene Blue Adsorption by Fine Grained 1221
Sediments off the Eastern Coast of Somalia. Strontium Distribution in Recent Indian Ocean 957

Sediments of Charlotte Harbor, Southwestern Florida . . . 449
Sediments of Mugu Lagoon, California. Graded Bedding in the Recent . . . 540
Sediments of the Malacca Strait, Southeast Asia . . . 102
Sediments of the Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and Source Areas of Late Paleozoic . . . 985
Sediments. Provenance Determinations and Recycling of . . . 1031
Sediments. X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and Low Rank Metamorphism in Humic . . . 1006
Selective Neomorphism and Fabric Discontinuities in Limestones . . . 688
Sen, D. P., note by . . . 699
Sequences, Switzerland. Sedimentology of Prealpine Flysch . . . 885
Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive . . . 377
Settling Velocities of Heavy and Light Minerals. The Nature of a Fluvial Process as Defined by . . . 530
Settling Velocities of Light and Heavy Minerals. Differentiation of Beach and Dune Sands, Using . . . 514
Shale. Allophane and Na-Rich Alunite from Kaolinitic Nodules in . . . 215
Shallow Water Coral Reef Environment. Terrigeneous Sedimentation in a . . . 1001
Shannon, J. P. Jr. and Lord, C. W. article by . . . 1200
Shape, and Compositional Mode of Grains in Altered Sandstones. Combined Analysis of Size, . . . 1250
Shelf Sediment, Northwestern United States. Continental . . . 790
Shell Abrasion. Experimental Field Study of . . . 1117
Shell Content in Quartzose Beach and Dune Sands, Dee Why, N.S.W . . . 869
Shells. Wave and Current Orientation of . . . 1124
Shepard Award, 1967 . . . 259
Significance in the Coastal Plain of Israel. Factors Affecting the Lithification of Eolianite and Interpretation of its Environmental . . . 1189
Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of Southwestern Alberta. Classification and Environmental . . . 1163
Significance of Statistical Parameters for Distinguishing Sedimentary Environments in New South Wales, Australia . . . 1059
Silica. Diagenetic Replacement and Solution of Biogenic Phosphate by . . . 1238
Silts and Clays for Dry Particle-Size Analysis. Freeze Drying as a Rapid Method of Disaggregating . . . 970
Siltstones in Red Peak Member (Triassic), Central Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of . . . 710
Simsboro Formation of Northeast Central Texas. Petrology of the . . . 184
Size Frequency Distribution of Beach and River Sands. Dynamic Processes and Statistical Parameters Compared for . . . 327
Size Measurement in the Field. A Pocket Microscope for Grain . . . 703
Size, Shape, and Compositional Mode of Grains in Altered Sandstones. Combined Analysis of . . . 1250
Skeletal Carbonates. Diagenesis of . . . 914
Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West Texas. Role of the Blue-Green Alga *Girvanella* in . . . 1045
Slabs. Developing Suitable X-Ray Radiography Techniques for Thin Rock . . . 225
Slope off Southern California. Dolomite from the Continental . . . 963
Slump Features, Fayetteville Formation, Northwestern Arkansas . . . 804
Solution of Biogenic Phosphate by Silica. Diagenetic Replacement and . . . 1238
Somalia. Strontium Distribution in Recent Indian Ocean Sediments off the Eastern Coast of . . . 957
Sonyea Group, New York. Quantitative Analysis of Turbidites in the Upper Devonian . . . 1012
Source Areas of Late Paleozoic Sediments of the Ouachita Mountains, Southeastern Oklahoma. Paleocurrents and . . . 985
(South Africa). A Composite Detrital Grain from the Witwatersrand Conglomerates . . . 227
South Africa. Analcite in the Upper Karroo Sediments, Herschel District, . . . 1236
Southcentral Washington. Graded Lahars in the Type Sections of the Ellensburg Formation . . . 438
Southeastern Minnesota Adjacent Areas. Clay Mineralogy of the Glenwood Formation, . . . 863
Southeastern Oklahoma. Paleocurrents and Source Areas of Late Paleozoic Sediments of the Ouachita Mountains, . . . 985
Southeastern United States. Transport and Deposition of Clay Minerals . . . 1084
Southern California. Dolomite from the Continental Slope off . . . 963
Southern Israel. Ripple Controlled Desiccation Patterns from Wadi Shiqma, . . . 1243
Southern Part of the Great Barrier Reef. Black and Brown Foraminiferal Sand from the . . . 1023
South Florida and the Bahamas. Diagenesis and Porosity Development in Recent and Pleistocene Oolites from . . . 355
South Florida. The Production of Lime Mud by Algae in . . . 633
South Wales. Post-Depositional Structures in the Lias, . . . 166
South Wales. Sedimentation of Beach Gravels: Examples from . . . 128
South Wales. Supposed Cross-Lamination in the Mesozoic Strata of . . . 233
Southeast Asia. Sediments of the Malacca Strait, . . . 102
Southwest Wisconsin. The Marine Dolomitization of the Mifflin Member Platteville Limestone in . . . 311
Southwestern Alberta. Classification and Environmental Significance of Cryptalgal Limestones and Dolomites, with Illustrations from Cambrian and Ordovician of . . . 1163
Southwestern Florida. Sediments of Charlotte Harbor, . . . 449
Space. An Instrument for Measuring Planes and Vectors in . . . 1241
" . . . sparite Complex: Eosparite v. Neosparite. The . . . 1247
Specimens and Associated Sedimentary Matrix and Other Geologic Samples. Distribution of Carbohydrate Residues in Some Fossil . . . 12
Sphericity Parameters using an Electronic Particle-Size Analyzer. Measurement of Roundness and . . . 908

Spherule Abundances. Determination of Sedimentation Rates by Magnetic 1139
Spreng, A. C., article by 804
Spring Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate Transgressive-Regressive Sequence: The Bird 377
Square-Rod Piston Sampler for Lake Sediments. A 975
Stairway Sandstone (Ordovician) Phosphorites of Central Australia. Winnowing—An Important Process in the Concentration of the 818
Standard. VIII. R-Mode Factor Analysis of Cincinnatian Limestones The American Upper Ordovician 649
Stanley, Daniel J., Swift, Donald J. P., and Richards, Horace G., article by 1070
Statistical Application of Plagioclase Extinction in Provenance Studies 683
Statistical Parameters Compared for Size Frequency Distribution of Beach and River Sands. Dynamic Processes and 327
Statistical Parameters for Distinguishing Sedimentary Environments in New South Wales, Australia. Significance of 1059
Stauffer, Peter H., article by 487
Staunton Formation (Middle Pennsylvanian) in the Clinton Area West-Central Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the 175
Stockman, K. W., Ginburg, R. N. and Shinn, E. A., article by 633
Strait, Southeast Asia. Sediments of the Malacca 102
Strand Lines from Grain-Size Analysis. Recognizing Fossil 157
Strand-Line Carbonates of the Persian Gulf. The Macumber Formation of the Maritime Provinces, Canada. A Mississippian Analogue to Recent 365
Strata of South Wales. Supposed Cross-Lamination in the Mesozoic 233
Strata of Texas. Secondary Gypsum Enveloping Calcareous Concretions in Paleocene 1245
Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton Formation (Middle Pensylvanian) in the Clinton Area, West-Central Indiana 175
Stratigraphy and Sedimentology of the Middle Precambrian Rove Formation in Northeastern Minnesota 1154
Street, Norman, note by 956
Strike-Dip Indicator 1247
Strontium Distribution in Recent Indian Ocean Sediments off the Eastern Coast of Somalia 957
Structural Properties in Mid-Continent Pennsylvanian Sediments. Clay Fabric and its Relation to 610
Structure Due to Wind-Driven Foam. A Beach 691
Structures and Their Relationship to Proximal and Distal Depositional Environments. Turbidite Sedimentary 25
Structures from Barakar Rocks of Ramgarh Coal-Field, Bihar, India. Turbidite 699
Structures in the Lias, South Wales. Post-Depositional 166
Studies of Diagenesis and Low Rank Metamorphism in Humic Sediments. X-Ray Diffraction Techniques Applicable to 1006
Studies. Statistical Application of Plagioclase Extinction in Provenance 683
Study of Carbonate. A Negative Replication for Electron Microscopy 692
Study of Shell Abrasion. Experimental Field 1117
Study of the Sedimentary Pyrite of Western New York. X-Ray 221
Subaqueous Sediments. Methodology of Mechanical Analysis of 96
Sulfur Isotopes in Altered Pyrite Concretions from Israel 961
Suite. Variability of a River Clay 971
Supposed Cross-Lamination in the Mesozoic Strata of South Wales 233
Supratidal Dolomitization and Dedolmitization in Jurassic Rocks of Hamakhtesh Haqatan, Israel 760
Sutton, Robert G. and Walker, Roger G., article by 1012
Swain, F. M., Rogers, M. A., Evans, R. D. and Wolfe, R. W., Article by 12
Swift, D. J. P. and McMullen, R. M., note by 705
Swift, Donald J. P., Richards, Horace G. and Stanley, Daniel J., article by 1070
Switzerland. Sedimentology of Prealpine Flysch Sequences 885

Tabular and Trough Cross-Bedding: Comparison of Dip Azimuth Variability 80
Talus in Tasmania. The Texture of 796
Tasmania. The Texture of Talus in 796
Taylor, Roy K., article by 1221
Technique for Coring Unconsolidated Wet Sand. Plastic-Tube 714
Techniques Applicable to Studies of Diagenesis and Low Rank Metamorphism in Humic Sediments. X-Ray Diffraction 1006
Techniques for Thin Rock Slabs. Developing Suitable X-Ray Radiography 225
Teleki, P. G., article by 749
Terrigeneous Sedimentation in a Shallow Water Coral Reef Environment 1001
Texas. Petrology of the Simsboro Formation of Northeast Central 184
Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of West 1045
Texas. Secondary Gypsum Enveloping Calcareous Concretions in Paleocene Strata of 1245
Texture of Talus in Tasmania. The 796
The American Upper Ordovician Standard. VIII. R-Mode Factor Analysis of Cincinnatian Limestones 649
The Hudson River Estuary: Sedimentary and Geochemical Properties between Kingston and Haverstraw, New York 475
The Macumber Formation of the Maritime Provinces, Canada—A Mississippian Analogue to Recent Strand-Line Carbonates of the Persian Gulf 365
The Marine Dolomitization of the Mifflin Member Platteville Limestone in Southwest Wisconsin 311
The Nature of a Fluvial Process as Defined by Settling Velocities of Heavy and Light Minerals 530
The Orientation of Concave-Convex Particles Deposited from Experimental Turbidity Currents 229
The Orinoco Delta 297
The Production of Lime Mud by Algae in South Florida 633

The "... sparite" Complex: Eosparite v. Neosparite ... 1247
Thin Rock Slabs. Developing Suitable X-Ray Radiography Techniques for ... 225
Tidal-Cycle Sedimentation. Littoral Zone ... 677
Tidal Flat Deposits in the Ordovician of Western Maryland ... 601
Timer. Greywackes with a Primary Matrix from the Viqueque Formation (Upper Miocene-Pliocene) ... 5
Toomey, Donald Francis and Klement, Karl J., article by ... 1045
Tracer Sand. Automatic Analysis of ... 749
Transgressive-Regressive Sequence: The Bird Spring Group (Pennsylvanian), Arrow Canyon Range, Clark County, Nevada. Petrography of a Carbonate ... 377
Transport and Deposition of Clay Minerals, Southeastern United States ... 1084
Transport Deposits, Sacramento Valley, California: Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass ... 240
Transport Deposits, Sacramento Valley, California: Reply to Comment by Brown and Rich. Implications of Two Cretaceous Mass ... 248
Transport. Variations in Mineral Composition During ... 235
Transportation of Mud Crusts—Neglected Factors in Sedimentology. Development, Flotation and ... 73
Tree Iroko (Chlorophora Excelsa), Daloa, Ivory Coast. Recent Calcite-Cemented Sandstone Generated by the Equatorial ... 597
Trench. Sedimentation in the Puerto Rico ... 44
Trend Analysis of a Delta in the Bjorne Formation (Lower Triassic) of Northwestern Melville Island, Arctic Archipelago. Paleocurrent ... 852
Trettin, H. P., Agterberg, F. P., and Hills, L. V., article by ... 852
(Triassic), Central Wyoming," by M. Dane Pikard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member ... 710
Triplehorn, D. M., article by ... 879
Trough Cross-Bedding. Comparison of Dip Azimuth Variability. Tabular and ... 80
Turbidite Fan—A Report of Progress. Directional Features of an Experimental ... 509
Turbidite Sedimentary Structures and Their Relationship to Proximal and Distal Depositional Environments ... 25
Turbidite Structures from Barakar Rocks of Ramgarth, Coal-Field Bihar, India ... 699
Turbidites in the Upper Devonian Sonyea Group, New York. Quantitative Analysis of ... 1012
Turbidites of the Hatch Formation, Devonian of New York State. Upper Flow Regime Bed Forms in ... 1052
Turbidity Currents. The Orientation of Concave-Convex Particles Deposited from Experimental ... 229
Type Sections of the Ellensburg Formation, Southcentral Washington. Graded Lahars in the ... 438

Unconsolidated Cores in Plastic. Preservation of ... 1200
Unconsolidated Wet Sand. Plastic-Tube Technique for Coring ... 714
United States. Continental Shelf Sediment, Northwestern ... 790
United States. Transport and Deposition of Clay Minerals, Southeastern ... 1084
Unsieved Heavy Minerals. A Rapid Method for Determining Weight Percentages of ... 521
Upper Cambrian K-Bentonite from Missouri. Mineralogy of an ... 952
Upper Cenozoic Non-Marine Sediments in the San Pedro Valley, Arizona. Petrography of the ... 774
Upper Devonian Sonyea Group, New York. Quantitative Analysis of Turbidites in the ... 1012
Upper Flow Regime Bed Forms in Turbidites of the Hatch Formation, Devonian of New York State ... 1052
Upper Karroo Sediments, Herschel District, South Africa. Analcite in the ... 1236
Upper Lias of England. Origin of Friable Sandstones—Calcareous Sandstone Rhythms in the ... 1179
(Upper Miocene-Pliocene), Timer. Greywackes with a Primary Matrix from the Viqueque Formation ... 5
Upper Ordovician Standard. VIII. R-Mode Factor Analysis of Cincinnatian Limestones. The American ... 649

Valley, Arizona. Petrography of the Upper Cenozoic Non-Marine Sediments in the San Pedro ... 774
Valley, California: Comment on a Paper by Gary L. Peterson. Implications of Two Cretaceous Mass Transport Deposits, Sacramento ... 240
Valley, California: Reply to Comment by Brown and Rich. Implications of Two Cretaceous Mass Transport Deposits, Sacramento ... 248
Van Andel, Tj. H., article by ... 297
Variability of a River Clay Suite ... 971
Variability. Tabular and Trough Cross-Bedding: Comparison of Dip Azimuth ... 80
Variations in Mineral Composition During Transport ... 235
Vectors in Space. An Instrument for Measuring Planes and ... 1241
Veevers, J. J., note by ... 1250
Velocities of Heavy and Light Minerals. The Nature of a Fluvial Process as Defined by Settling ... 530
Velocities of Light and Heavy Minerals. Differentiation of Beach and Dune Sands, Using Settling ... 514
Vein Fillings in Marine Manganese Nodules. Aragonite ... 68
Victoria. Delineating the Major Depositional Environments in Northern Part Phillip Bay, ... 931
Viqueque Formation (Upper Miocene-Pliocene), Timer. Greywackes with a Primary Matrix from the ... 5

Wadi Shiqma, Southern Israel. Ripple Controlled Desiccation Patterns from ... 1243
Wales. Post-Depositional Structures in the Lias, South ... 166
Wales. Sedimentation of Beach Gravels: Examples from South ... 128
Wales. Supposed Cross-Lamination in the Mesozoic Strata of South ... 233
Walker, Roger G., article by ... 25

Walker, Roger G., article by 1052
Walker, Roger G. and Sutton, Robert G., article by 1012
Warme, John E., article by 540
Washington. Graded Lahars in the Type Sections of the Ellensburg Formation, South-central 438
Water Coral Reef Environment. Terrigeneous Sedimentation in a Shallow 1001
Wave and Current Orientation of Shells 1124
Weaver, Charles E., note by 971
Weaver, Charles E. and Neiheisel, James, article by 1084
Weight Percentages of Unsieved Heavy Minerals. A Rapid Method for Determining 521
West-Central Indiana. Stratigraphic Analysis of Key Beds in Cyclothems in the Staunton Formation (Middle Pennsylvanian) in the Clinton Area, ... 175
Western Maryland. Tidal Flat Deposits in the Ordovician of 601
Western New York. Cone-In-Cone Concretions from 87
Western New York. X-Ray Study of the Sedimentary Pyrite of 221
West Indies. Diagenetic Fabrics in Biosparites from the Pleistocene of Barbados, ... 1147
West Texas. Role of the Blue-Green Alga *Girvanella* in Skeletal Grain Destruction and Lime-Mud Formation in the Lower Ordovician of 1045
Wet Sand. Plastic-Tube Technique for Coring Unconsolidated 714
White, James R. and Williams, E. G., article by 530
Willey, E. C., note by 233
Williams, E. G. and White, James R., article by 530
Wind-Driven Foam. A Beach Structure Due to 691
Winnowing—An Important Process in the Concentration of the Stairway Sandstone (Ordovician) Phosphorites of Central Australia 818
Wisconsin. The Marine Dolomitization of the Mifflin Member Platteville Limestone in Southwest 311
Witwatersrand Conglomerates (South Africa). A Composite Detrital Grain from the 227
Wobber, Frank J., article by 166
Wobber, Frank J., note by 1233
Wolfe, R. W., Swain, F. M., Rogers, M. A. and Evans, R. D., article by 12
Wright, H. E., note by 975
Wyoming," by M. Dane Picard, and Douglas D. Beckmann. Comment on a Paper "Non-Opaque and Opaque Grain Fabrics of Siltstones in Red Peak Member (Triassic), Central 710

X-Ray Diffraction Techniques Applicable to Studies of Diagenesis and Low Rank Metamorphism in Humic Sediments 1006
X-Ray Radiography Techniques for Thin Rock Slabs. Developing Suitable 225
X-Ray Study of the Sedimentary Pyrite of Western New York 221

Yaalon, D. H., article by 1189
Yasso, Warren E., discussion by 714
Ynez Mountains, California. Grain-Flow Deposits and Their Implications, Santa 487

Zeolites, and Clays in an Eocene Neritic Sand Bar: Addendum. Opal, ... 240
Zone Tidal-Cycle Sedimentation. Littoral 677